

**DEPARTMENT OF HEALTH
FOOD PROTECTION AND
DRINKING WATER QUALITY PROGRAMS
PERFORMANCE AUDIT
NOVEMBER 2001**

**DEPARTMENT OF ADMINISTRATION
BUREAU OF AUDITS
ONE CAPITOL HILL
PROVIDENCE, R.I. 02908-5889**



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

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Department of Health
FOOD PROTECTION AND
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Performance Audit

EXECUTIVE SUMMARY

The department expects the License 2000 system will provide adequate support for the Food Protection license renewal process. The inspection and complaint processes would benefit from an increase in the support to the inspection module through proposed information technology enhancements. The system implementation is an ongoing process and at the time of our review we were not able to evaluate the effectiveness of the system to meet the program objectives. The uncertainty about operational functionality of the inspection module limits management to rely on their manual monitoring method and this may increase program risk over time.

The U.S. Environmental Protection Agency report commended the department for its management of the Drinking Water Program but also suggested that the state streamline its database so that compliance determination and reporting would be easier. The state has committed to convert to the Federal Data System in order to achieve this goal.

We were informed that due to previous budget reductions the Office of Private Well Water Contamination no longer exists in any formal way to perform the statutory functions.

The method of planning, scheduling and conducting inspections for Licensing Swimming and Wading Pools, Hot Tubs and Spas is informal and can result in frequent inspections and testing of water samples of some pools, while others may not be done at all. There are no reports generated to measure the efficiency and effectiveness of inspections.

We noted the Rule and Regulations for Clean Water Infrastructure Plans and the Rules and Regulations for Bottled Water need to be updated to reflect recent changes in the Rhode Island General Laws and U.S. Environmental Protection Agency standards.

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November 27, 2001

Patricia A. Nolan, MD, MPH
Director of Health
Three Capitol Hill
Providence, RI 02908-2506

Dear Dr. Nolan:

We have completed our audit of the Department of Health, Food Protection and Drinking Water Quality Programs. The findings and recommendations included here have been discussed with management and we have considered their comments in the preparation of our report. Management's responses to our recommendations are included in this report.

In accordance with Section 35-7-4 of the General Laws, we will review the status of the department's corrective active plan within six months from the issue date of this report.

Sincerely,

Stephen M. Cooper, CFE, CGFM
Chief, Bureau of Audits

SMC:pp

Department of Health
FOOD PROTECTION AND
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Performance Audit

INTRODUCTION

Objectives, Scope, and Methodology

We have conducted a performance audit of the Department of Health, Food Protection and Drinking Water Quality Programs for the fiscal year ended June 30, 2000 and fiscal 2001 through January 3, 2001. Our objectives were to determine if the programs complied with laws and regulations and were acquiring, protecting, and using resources economically and efficiently.

Our audit was made in accordance with the *Standards for the Professional Practice of Internal Auditing* issued by the Institute of Internal Auditors and included such tests of the accounting records and such auditing procedures as we considered necessary in the circumstances.

We evaluated the internal control structure of the programs and reviewed the procedures used for licensing, registrations, certifications, and inspections as well as procedures used to comply with various Rhode Island General Laws and state regulations. The formulation of the findings and recommendations contained in this report were based on our review and analysis of state laws and regulations as well as interviews with personnel and tests of the effectiveness of policies and procedures followed to ensure compliance with applicable laws, regulations, and procedures.

The findings and recommendations included herein have been discussed with management, and we have considered their comments in the preparation of our report.

Background

Chapter 23-1 of the Rhode Island General Laws established the Department of Health within the executive branch of state government. The Department is responsible for a broad range of public health areas. The Environmental Health program includes the Food Protection and Drinking Water Quality programs. Food Protection is responsible for assuring the safety and quality of the food supply and administers the food manager certification program. Drinking Water Quality is responsible for assuring that public water supplies comply with the Safe Drinking Water Act, for reviewing and approving projects for financial assistance, and for ensuring the safety of bottled water and swimming pools.

The Department of Health is in the process of implementing its new automated licensing system called "License 2000." The system is to provide comprehensive support and access to Department of Health licensing information. This includes applications and renewals, information and license verification requests, fiscal accountability, complaint and compliance processing, and database updates. The Food Protection and Drinking Water Quality programs will be utilizing this new system for various aspects of their respective programs.

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FINDINGS AND RECOMMENDATIONS

Control Practices for Information Technology

The Food Protection and Drinking Water Quality programs are using some features of the License 2000 system while the project management team is implementing various aspects of the system on a department-wide basis. We noted a number of issues related to end user control objectives which affect operations and should be addressed in both short and long-term planning. The key issue is that the end users need to ensure that the information from the system will meet their business and program objectives.

Following is a summary of the areas related to individual programs reviewed as well as issues with broader department-wide implications:

Food Protection Program: The License 2000 system is currently providing adequate support for the license renewal process. The inspection and complaint processes would benefit from an increase in the support to the License 2000 inspection module through proposed information technology enhancements. However, there are uncertainties as to how much functionality can reasonably be developed and not increase data entry bottlenecks. Food Protection Management has responded to these operational limitations by devising an inspection pilot program which includes referencing inspection violations to the National Food Code, standardizing inspection protocols, and incorporating a quality assurance component to ensure quality data collection and to enhance electronic data capture capabilities. These business process improvements have satisfactorily mitigated program risk in the short term; however, management's current monitoring method is a labor-intensive, manual process.

We were not able to evaluate the effectiveness of the License 2000 system to meet the program objectives because the system was in a preliminary stage at the time of our fieldwork. The uncertainty about operational functionality of the inspection module limits management to rely on their manual monitoring method and may increase program risk over time.

The License 2000 Management anticipates that full implementation on the Inspection Module will be completed during January 2002. During the summer of 2001 business manuals will be developed. Management further believes that implementation of other system modules should be delayed until completion of the Licensing Module.

Drinking Water Quality Program: This program has implemented some features of the License 2000 system related to licensing of public water supply systems, system operators, bottled water, and swimming pools. The swimming pool unit will eventually use the License 2000 inspection module. However, the Drinking Water Quality Program is dependent upon other data base software (Unix Filepro) that has been modified and in use for over the past decade and is critical to the unit's compliance with Federal Drinking Water Regulations.

The U.S. Environmental Protection Agency submitted a Public Water System Supervision Program Data Verification Report, dated September 29, 1998, to the department's Division of Drinking Water Quality. This report documented the results of data verification and reviewed system files for inventory updates and compliance with the federal regulations. The report commended the department for its management of the Drinking Water Program but also suggested that the state streamline its database so that compliance determination and reporting to the Safe Drinking Water Information System (SDWIS) would be easier. The State has committed to convert to the Federal Data System known as SDWIS STATE in order to achieve this goal.

Overall Summary: A department-wide information technology methodology is needed to support the end user and ensure data quality and integrity over the life of the systems in place including future enhancements. Management's understanding and implementation of manual controls associated with the implementation of new

technologies is indicative of a well-informed initiative and a strong commitment to the Food Protection and Drinking Water Quality missions. To ensure further mitigation of risk, the use of generally applicable and accepted standards for security and control practices for information technology would be helpful. Examples of standards that have been developed are those by Information System Audit and Control Foundation (ISACF). This foundation has developed generally applicable and accepted information technology standards for control objectives for information related technology (COBIT) which can help balance risk and control investments. In addition, a key component of internal control is information and communication. System satisfaction surveys are a tool that would allow for the enhancement of communications between end users and system's management.

Recommendations

1. Explore the feasibility of utilizing generally accepted standards for security and control practices for information technology.

Management's Response: Agree

2. Consider conducting end user system satisfaction surveys.

Management's Response: Agree

Consumer Confidence Reports

Following the passage of the 1996 Amendments to the Federal Safe Water Drinking Act, the U.S. Environmental Protection Agency and the Department of Health published rules and regulations that require each existing community public water system to deliver to its customers an annual Consumer Confidence Report. The purpose of these reports is to give consumers more information on their drinking water including opportunities to get involved in protecting their water source. The department contracted with a vendor to gather the information and prepare and distribute the reports including copies to the Department of Health. This was done to assist the smaller community systems in meeting the requirements and to ensure uniformity and consistency in the reported data. The first reports were based on water quality data collected from January to December 1998 and were required to be delivered to consumers by October 1999. All subsequent reports must be delivered annually starting July 1, 2000.

We reviewed the reports for calendar years 1998 and 1999 that are on file with the department and noted that several were difficult to interpret. Some reports identified the detection of contaminants at a level in excess of the maximum allowed and were reported in the contaminants summary table. However, the opening paragraph stated that the drinking water had met both federal and state requirements. Additional explanations were needed from the department's staff to fully understand the scientific conclusions cited in some of the reports. Management agreed that additional language should be incorporated in the reports for clarity purposes but cited limitations in their ability to implement their goal due to Federal requirement for format and content.

Recommendation

3. Ensure that the Consumer Confidence Reports effectively communicate information provided to consumers.

Management's Response: Agree

Private Wells

Sections 23-1-5.2 through 23-1-5.5 of the Rhode Island General Laws created within the Department of Health an Office of Private Well Water Contamination and the requirement that the department submit an annual report to the Governor, General Assembly, and the public on the status of private well water contamination in the state. The duties of the office include:

- Coordinating the responses of all state agencies to instances of private well water contamination;
- Informing public officials of both private well contamination events and of any actions proposed by state agencies;
- Advising private well owners, public officials, and others on applicable federal and state policies, regulations, and standards related to private well contamination; and
- Developing educational materials and regulations for emergency response to private well contamination.

We were informed that due to budgetary constraints the office no longer performs these functions, nor is an annual report prepared. However, the Rhode Island General Laws have not been revised and it is not clear if these functions are performed by any other state entity.

Recommendation

4. Clarify the department's role and responsibilities regarding the functions of the Office of Private Well Water Contamination and its statutory reporting requirements.

Management's Response: Agree

Swimming Pool Inspections

Section 6.0 of the Rules and Regulations for Licensing Swimming and Wading Pools, Hot Tubs and Spas requires annual inspections. The method of planning, scheduling, and conducting inspections is informal and can result in frequent inspections and testing of water samples of some pools, while others may not be done at all. This informal method is not supported by any risk assessment methodology. There are no reports generated to measure the efficiency and effectiveness of inspections. Data from inspections and samples tested are entered into a database and used to prepare various summaries, but the information is not used to manage day-to-day operations.

Recommendation

5. Increase oversight of the program, improve the planning and scheduling of inspections, and utilize risk assessment to assist in meeting program objectives.

Management's Response: Agree

Updated Rules and Regulations

We noted the following two areas where rules and regulations should be updated to reflect recent changes. First, the Rules and Regulations for Clean Water Infrastructure Plans (R46-15.6-INFRA) makes reference to Section 46-15.4 of the Rhode Island General Laws that was replaced in 1997 by Section 46-15.3. This

involves several minor changes as well as references to the new section of the law.

Second, the Rules and Regulations for Bottled Water (R21-23-BB) do not reflect the "Phase II Rule" requirements of the 1995 Environmental Protection Agency standards for certain contaminants in drinking water which is currently the standard being used by the department.

Policies, procedures, and regulations are part of the controls that management has to ensure that program objectives and performance goals are met. The overall control process is strengthened by periodic review to keep them up to date with changing laws and improved scientific and other information.

Recommendation

6. Rules and regulations pertaining to Clean Water Infrastructure Plans and Bottled Water should be updated.

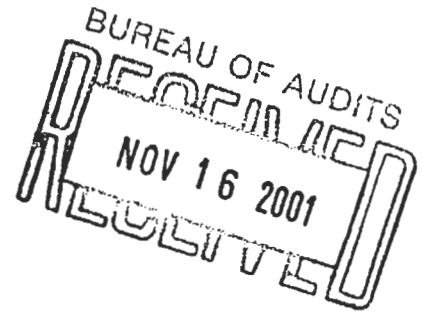
Management's Response: Agree

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
D E P A R T M E N T O F H E A L T H



Safe and Healthy Lives in Safe and Healthy Communities

November 9, 2001



Stephen M. Cooper, CFE, CGFM
Chief, Bureau of Audits
Department of Administration
Bureau of Audits
One Capitol Hill
Providence, Rhode Island 02908

RE: Food Protection and Drinking Water Quality Programs – Performance Audit

Dear Mr. Cooper:

The Department is pleased to provide comments in response to the Bureau's performance audit report, Food Protection and Drinking Water Quality Programs, Performance Audit, October 2001.

We are confident that the operational functionality of the inspection module within our License 2000 system will provide adequate support to the Offices of Food Protection and Drinking Water Quality on or before the close of the current state fiscal year.

The Office of Drinking Water Quality has committed to convert to the federal database for Safe Drinking Water Act compliance and reporting (known as SDWIS). Conversion will happen over the next three years. This will streamline the Drinking Water Program database so that compliance determination and reporting will be easier.

We have assigned the new Supervising Sanitary Engineer to supervise the swimming pool inspection program. She will review the audit concerns and implement the necessary procedures to provide a measurable inspection process to ensure the waters are safe for public use.

We will be updating the Clean Water Infrastructure plans within the next three years. We do not agree with your recommendation to update the rules and regulations pertaining to Bottled Water because these regulations include a cross-reference to the public water system regulations.

The Department appreciated the opportunity to work closely with members of your audit staff to discuss issues raised by your audit staff.

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If you have any questions on this response, please do not hesitate to contact me or Walter S. Combs, Jr., PhD, Executive Director, Division of Environmental Health, at 222-3118.

Sincerely,

Patricia A. Nolan, MD, MPH

Patricia A. Nolan, MD, MPH
Director of Health

Enclosure

cc: Walter S. Combs, Jr., PhD
June Swallow, P.E.
Ernest Julian, PhD
Deborah A. Kennedy, JD
Carolyn Dias
Edward Martin
Robert Childs
Nikki Deary

Management's Response to Audit Findings and Recommendations

Recommendation #1

Explore the feasibility of utilizing generally accepted standards for security and control practices for information technology.

Departmental Response:

The Department of Health, Office of Information Systems (OIS) works closely with the State of Rhode Island Office of Library and Information Services (OLIS) relating to the accepted standards for security and control practices for information technology. By the close of 2002, the OIS will explore the feasibility of COBIT for the RI Department of Health. A decision will be made after the evaluation is completed.

Recommendation #2

Consider conducting end user system satisfaction surveys.

Departmental Response:

The use of end user satisfaction surveys is premature in light of the fact that the implementation of the L2K system is ongoing. The surveys will be a useful tool as the implementation of each module of the system is completed and will be considered at that time.

HEALTH is committed to providing ongoing support to its two-hundred (200) end users through the License 2000 Project Team infrastructure. Each program area, including the Office of Food Protection and the Office of Drinking Water Quality, has assigned a system "key person" to the Project Team. These key team members have been directly involved with the system set-up of the program business rules, the conversion of data into License 2000 and ongoing implementation issues. They continue to attend weekly Project Team meetings and are responsible for the exchange of information between the Project Team and the end users. Discussions to enhance the exchange of information and to provide ongoing support have included the creation of a License 2000 "Help desk" in conjunction with the Office of Information Systems.

Recommendation #3

Ensure that the Consumer Confidence Reports effectively communicate information provided to consumers.

Departmental Response:

The federal regulation, to a large degree, dictates form and content of these reports. However, within these constraints, Drinking Water will comply with this recommendation. Content violations in the 1999 year reports were generated in April of 2001, and discussions were held with our consultant vendor to clarify the language with respect to violations and compliance.

Recommendation #4

Clarify the department's role and responsibilities regarding the functions of the Office of Private Well Water Contamination and its statutory reporting requirements.

Departmental Response:

The Office of Drinking Water Quality does not have the personnel nor the funding to perform the functions required by the existing statute, RI General Laws Section 23-1-5.2 et seq., as amended. This Office has not been able to effectively implement the provisions under this law since 1993. Nonetheless, we believe that RIGL 23-1-5.2 is an important tool for public health protection and are reluctant to ask that this law be repealed. We continue to argue that our budget should be restored so that we may fulfill our duties under the law.

In this current legislative session, there was a bill addressing private wells, but the bill did not pass the House.

Recommendation #5

Increase oversight of the program, improve the planning and scheduling of inspections, and utilize risk assessment to assist in meeting program objectives.

Departmental Response:

At the time of this audit, the Supervising Sanitary Engineer position was vacant. Since then, this position has been filled and supervision (oversight) of this program has been assigned to her. This recommendation will be followed.

Recommendation #6

Rules and regulations pertaining to Clean Water Infrastructure Plans and Bottled Water should be updated.

Departmental Response:

The Clean Water Infrastructure plans will be updated within 3 years. The Bottled water regulations include a cross-reference to the Public water system regulations, which is adequate to meet our needs. We have no near term plans to update these rules.